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Robert D. Lynd
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October 22, 1999

Hand Delivered

Ms. Felecia L. Greer
Executive Secretary
Public Service Commission
of Maryland
6 St. Paul Street
16th Floor
William Donald Schaeffer Tower
Baltimore, Maryland 21202

Re: Case No. 8826

Dear Ms. Greer:

Enclosed please find an original and twenty copies of Bell Atlantic - Maryland, Inc. Initial Comments.

Very truly yours,

RDL/ead

OCT 22

Enclosures

cc: All Parties of Record

BEFORE THE
PUBLIC SERVICE COMMISSION OF MARYLAND

In The Matter of the Investigation into the Preparedness of Maryland Utilities for Responding to Major Outages	)))	Case No. 8826

BELL ATLANTIC- MARYLAND, INC.
INITIAL COMMENTS

In response to the Commission's Notice of Investigation dated October 1, 1999, Bell Atlantic – Maryland, Inc. ("BA-MD") respectfully submits comments on the following: 1) performance data included as part of BA-MD's report filed on October 15, 1999; 2) methods and procedures for dealing with abnormal and emergency conditions; and 3) ongoing planning efforts designed to maintain and enhance the reliability of BA-MD's in the face of adverse conditions.

Introduction

BA-MD's highest priority is to provide reliable, high quality telecommunications services to Maryland residents and businesses. BA-MD's long-established service commitment remains stronger than ever. Even in the face of natural or manmade disasters,[1] BA-MD strives to maintain service at normal levels. BA-MD has a comprehensive preventive maintenance program that is designed to minimize the effects of such adverse conditions. BA-MD's organizational structure provides the flexibility to divert personnel promptly from one area to another as service and repair conditions

[1] In addition to weather-related outages, BA-MD occasionally experiences service disruptions as a result of careless excavation, motor vehicle collision, fire and other external causes.

dictate, thereby helping to minimize the duration of any service disruption. In addition, Bell Atlantic's Regional Network Service Assurance organization is specifically tasked with developing and testing detailed emergency plans to assure prompt response and recovery from large scale manmade or natural network failures. Finally, BA's technology deployment plans are designed to maintain and enhance the reliability and survivability of the network.

BA-MD's Service Performance During Major Events in 1999

In its Notice of Investigation, the Commission asked Maryland utilities to address three specific events that occurred this year -- the January ice storm, the July heat wave the September hurricane.

As explained in BA-MD's October 15, 1999 report, the company experienced service disruptions during the January ice storm at levels slightly above normal. These outages resulted primarily from damage to outside lines caused by the additional weight of ice, which produced increased strain on the facilities. BA-MD's outside plant network is generally not adversely affected by heat, and the company discovered no evidence of heat-related outages during the high temperatures of July.

The severe winds and heavy rains of Hurricane Floyd produced levels of service outages about two and one half times higher than under normal conditions. Despite this large increase in repair requirements, BA-MD was able to restore most business service within an average of about 30 hours and most residence service within an average of about 45 hours. This relatively prompt response was made possible by operations procedures which allow BA-MD's field forces to be diverted promptly from routine work

(such as placement of new facilities, day-to-day installation and general maintenance) in order to concentrate on emergency repair and restoration. In the case of Hurricane Floyd, technicians were quickly reassigned and dispatched to the areas most severely affected by the storm and were able to begin prompt repair and replacement activities. BA-MD also has the ability to "borrow" employees on a temporary basis from any of its 13 affiliated Bell Atlantic telephone companies, although such steps were not required in responding to the September storm.

BA-MD also takes steps to assure that community emergency and public safety services are given top repair priority, including 911 emergency service, police and fire departments, hospitals and other health care facilities, critical government agencies and other services as may be identified by appropriate governmental agencies.

BA-MD Contingency Plans and Disaster Recovery Procedures

BA-MD has comprehensive contingency plans to deal with emergency situations. These plans provide the appropriate direction and organizational structure to control events, coordinate functions and communicate effectively. For example, a detailed contingency plan exists for dealing with the failure of an entire central office. Because such an event, although unlikely, could inconvenience thousands of customers, the contingency plan is detailed and includes such activities as annual disaster simulation drills.[2] A summary of the Bell Atlantic Disaster Recovery–Central Office Restoral Plan is included as Attachment I.

A key component of BA-MD's contingency plans is emergency power supply. When commercial electric power fails, BA-MD's network immediately reverts to

battery powered backup systems. In turn, the battery system is supplemented by fuel driven electric generators in the event of longer outages. In any case, when commercial power is interrupted, the network automatically transfers to emergency power, providing for uninterrupted telecommunications service to customers. During the September hurricane, 43 central offices and approximately 300 remote terminals[3] experienced a loss of commercial power. In each case, however, the systems transferred immediately to the emergency power supplies and continued to operate.

Further, to limit its exposure to commercial power failures, BA-MD's planning organization is in the process of analyzing additional ways to expand and enhance the efficiency of emergency power available at remote terminals. Consideration is being given to deploying DC generators powered by natural gas or propane which can operate for periods of up to 100 to 200 hours without refueling (depending on the size of the tank). Field trials are currently underway to determine the feasibility of such an approach.

While the contingency plans allow BA-MD to effectively handle the significant service situations when they occur, it important to note that the ongoing daily maintenance performed on the network helps to minimize the extent of the service problems.

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[2] BA-MD conducted its most recent disaster simulation drill on August 12, 1999.

[3] Remote terminals are located at various points in the network outside central offices. They use commercial or backup power to amplify message signals during call transmission.

BA-MD Technology Deployment Plans

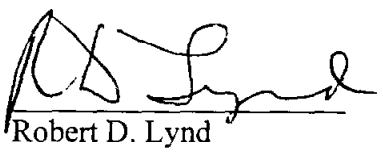
From tactical perspective, BA-MD has the personnel and the methods and procedures to respond promptly to major network disruptions. In addition, BA-MD's planning strategy emphasizes survivability and reliability of the network. The company constantly deploys technology that maintains and enhances the network availability, reliability, and survivability. The deployment of digital central offices gives BA-MD's switches a reliability factor of 99.9%.

The deployment of fiber optic facilities and SONET rings in the interoffice network provides additional improvements in reliability. SONET systems continually monitor transmission quality on an automated basis, detecting and reporting errors in signals and, if necessary, automatically switch to alternative routes or other back–up facilities. Unlike copper, fiber optic cable is impervious to problems caused by water, a factor that has also greatly enhanced network reliability.

Conclusion

Weather and other natural and human forces occasionally disrupt BA-MD's telecommunications system. The company believes, however, that systems are in place to deal with such contingencies, including force relocation procedures and disaster recovery plans. BA-MD's employees have responded with skill and dedication in the face of emergency situations, and the company will continue to strive to maintain the highest possible levels of service continuity, even when adverse conditions arise.

Respectfully submitted,



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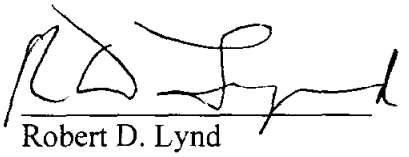
Counsel to Bell Atlantic – Maryland, Inc.

October 22, 1999

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Bell Atlantic - Maryland, Inc. Initial Comments was served on All Parties in this case on this 22nd day of October, 1999, by hand-delivery or by overnight delivery.



Robert D. Lynd

BELL ATLANTIC DISASTER RECOVERY - CENTRAL OFFICE RESTORATION PLAN

GENERAL

Bell Atlantic's crisis management objective is to manage and control all aspects of a disaster/crisis event as they relate to our network services by Responding, Restoring, Recovering, and Mitigating in an organized and professional manner.

In a disaster/crisis event, Bell Atlantic's proprietary "Disaster Recovery - Central Office Restoration Plan" (BA 002-201-500) will provide the direction and organizational structure necessary to coordinate disaster recovery activities and effectively restore our Operating Telephone Companies' network services. During such an event, Bell Atlantic will assume command, control, and communications responsibility.

The Bell Atlantic Disaster Recovery Plan - Central Office Restoration Plan details policies for handling declared disasters. Included in the overall plan are procedures relating to internal escalation policies, coordination of services, organizational responsibilities, and response times.

OVERALL RESPONSIBILITY - NETWORK SERVICE ASSURANCE CENTER

The Bell Atlantic Network Service Assurance Center (NSAC) performs surveillance of the Bell Atlantic network throughout our region and has overall responsibility for coordinating disaster recovery efforts. The NSAC serves as the crisis control center and uses Incident Command System (ICS) techniques and structure to ensure that logical and thoughtful problem-solving methods are used during disaster recovery. As soon as possible after the onset of a disaster/crisis event, the NSAC will assume coordination control.

The NSAC is staffed with Subject Matter Experts (SMEs) that represent all the technologies deployed within Bell Atlantic. The NSAC response team, through routine disaster drill exercises and study of past crisis responses, has developed pre-plans, check lists, recommendations, emergency service-provider information, discipline-specific calling lists, and general crisis management guidelines.

Bell Atlantic's response team concept is to develop incident-specific response, restoration, and recovery tactics to recover from a disaster. These include using our specific pre-plans, infrastructure capabilities, SME experience, and our ability to evaluate and respond with sound countermeasures. Our approach employs prudent preparedness and is consistent with current methods for risk management assessment of a likely catastrophic event.

NETWORK SURVIVABILITY

Bell Atlantic is thoroughly aware of the overriding importance of service continuity. Our commitment to network survivability, reliability, and security is demonstrated by the following key capabilities, systems, and features:

- Primary and alternate fiber optic cable routes between critical switch sites
- Hot-standby transmission equipment with 1x1 automatic protection switching is provided at critical switch sites

- Switching equipment, SONET and Digital cross-connect transmission equipment, and Operational Support Systems (OSS) with redundant critical components
- Advanced network monitoring, key-element alarms, and facilities for rapid rearrangements and in-service upgrades
- Optical remote switches with emergency stand-alone trunking
- Flexible cross-connect systems for analog and digital transmission services
- Emergency generators (permanent and portable) with Automatic Transfer Feature
- Power redundancy and sizing for 125 percent of design load
- Environmental systems with remote-alarm arrangements

ACTIVATION OF THE DISASTER RECOVERY-CENTRAL OFFICE RESTORATION PLAN

The Disaster Recovery-Central Office Restoration Plan may be activated in the event of one of the following:

- Activation of the National Security Emergency Preparedness (NSEP) plan by the appropriate authorities within the Federal Government.
- A catastrophic disruption such as fire, flood, hurricane, earthquake, act of terrorism, or an industry nuclear event.

Disaster Recovery Teams

The Disaster Recovery Plan describes ten teams. These teams comprise two steering teams (ST), one control team (CT), and seven field (onsite) teams (FT). The Plan provides for a worst case scenario, and depending on the severity of the disaster, all or some combination of the following teams will play a roll in the recovery process:

1. Damage Assessment (ST)
2. Director - Network Operations (NOC) Action Team (ST)
3. Project Coordination Team (CT)
4. Building Restoration Team (FT)
5. Intercept-Translation/Network Administration (FT)
6. Switch Restoration Team (FT)
7. Local Area Service Restoration Team (FT)
8. Essential Service/Critical Department Restoration Team (FT)
9. Special Services—Miscellaneous Equipment Recovery Team (FT)
10. Facility Recovery Team (FT)

A description of the two steering teams that direct the disaster recovery process and their responsibilities follows:

Damage Assessment Team

The objective of the Damage Assessment Team is to provide the Director - NOC (see below) with expert opinion, options, and recommendations concerning service restoration. Contingent upon the nature of the disaster, the team will comprise the following members:

- Team Leader - Director-Regional Network Service Assurance (or designate)

- Members
  - National Telecommunications Alliance (NTA) (NSEP-invoked)
  - Other team leaders, as appropriate
  - Bell Atlantic Subject Matter Experts (SMEs)
  - Vendor Representatives
  - Bellcore Research Disaster Recovery SMEs

The Damage Assessment Team has specific, immediate functions:

Damage Assessment Team Leader:

- Immediately assembles the team of Subject Matter Experts, NTA restoration organization members, and other team leaders at the site to perform damage assessment

- Assembles outside consultants and assistance, as necessary, to provide assessment expertise

- After preliminary evaluation, controls and directs the assessment/evaluation meetings to present concise opinions and recommendations to the Director - NOC Action Team.

The Damage Assessment Team

- Serves the team leader as an ongoing source of expertise, as required

- Serves as a sounding board for strategy in the Director - NOC Action Team meetings.

Director - NOC Action Team

The NOC Action Team provides the information, options, and recommendations necessary for the Director - NOC to develop strategy and direction for the overall recovery effort. This team must also derive, at the direction of the Director - NOC, time lines and objectives for restoration. Contingent upon the nature of the disaster, the team will comprise the following members:

- Team Leader - Director - NOC (or designate)

- Members
  - Damage Assessment Team
  - Other team leaders, as appropriate
  - Bellcore Research Disaster Recovery SMEs

The specific functions of the Director- NOC Action Team are as follows:

- Conducts the initial Director - NOC Action Team meeting so as to provide an open forum for general idea exchange

- Assimilates data and finalizes recommendations that will emerge as directives for the logical course of action

- Develops a consensus of opinion that will be submitted to the Director - NOC for concurrence

- Acts as the central source for direct communications to all restoration team leaders and SMEs. All members of the Director - NOC Action Team will have a firsthand understanding of the rationale for recovery, therefore minimizing misunderstanding.

The ten teams provide the management structure that will ensure that the precepts of the Incident Command System are followed.

PHASES OF THE DISASTER RECOVERY-CENTRAL OFFICE RESTORATION PLAN

Phase 1: RESPONSE

Bell Atlantic's Disaster Recovery - Central Office Restoration Plan consists of four phases: Response, Recovery, Restoration, and Mitigation:

Phase 1 of the Plan is to respond to the disaster in an organized and logical manner with focus on notification, crisis management structure, and emergency service:

- Notify all Operations and Support team members
- Notify the NSAC and Network Operations Centers (NOCs)
- Assemble the Damage Assessment Team and other teams to develop and implement the planning, logistics, operations, and command functions
- Develop tactics to meet the communications needs of Bell Atlantic's customers and the general community

Phase 2: RESTORATION

Phase 2 of the Plan is to restore service to all affected customers:

- Prioritize areas for restoration
- Implement temporary measures to provide service, if necessary
- Develop central office-specific strategy and objectives

Phase 3: RECOVERY

Phase 3 of the Plan is to recover the network to pre-disaster conditions (the recovery phase lasts until all affected services are on their final permanent assignment):

- Plan and execute full recovery; this may entail "rollover" of equipment and facilities to a new host
- Recover all services and functions

Phase 4: MITIGATION

Phase 4 of the Plan is to mitigate, i.e., to implement preventive measures to eliminate or reduce the likelihood of a similar event.

- Identify root cause(s)
- Review and implement preventive recommendations
- Oversee and inspect preventive measures

DISASTER RECOVERY GOALS - TIME LINES

One of the fundamental roles of the NSAC and the Damage Assessment Team is to set time line objectives and track response performance. Because the degree of equipment/service involvement can vary with each disaster/crisis event, the time line for the phases of recovery must be derived from incident-specific information. Based upon crisis experience, Bell Atlantic would assume the recovery time-line as follows:

	FROM	***TO***
RESPONSE	HOUR 0	HOUR 48
RESTORATION	HOUR 12	HOUR 336
RECOVERY	HOUR 12	MONTH 6
MITIGATION	AFTER RESTORATION PHASE IS COMPLETE	

CONSTRAINTS AND CONDITIONS

Bell Atlantic is obligated by law and tariff to restore specific services first (Telecommunications Service Priority and critical Government services). Other services essential to the community will naturally take precedence over general service restoration. Priority will be given to the police and fire departments, 911 emergency service, hospitals, blood banks, crisis hot lines, Government agencies, and other services as directed by the State Regulatory Commissions and the Emergency Management Agency.

Bell Atlantic considers the loss of exchange access/service or a severe service degradation to our customers as unacceptable. We will provide all resources at our disposal to expedite any recovery action.